

Chapter 12 DNA and RNA

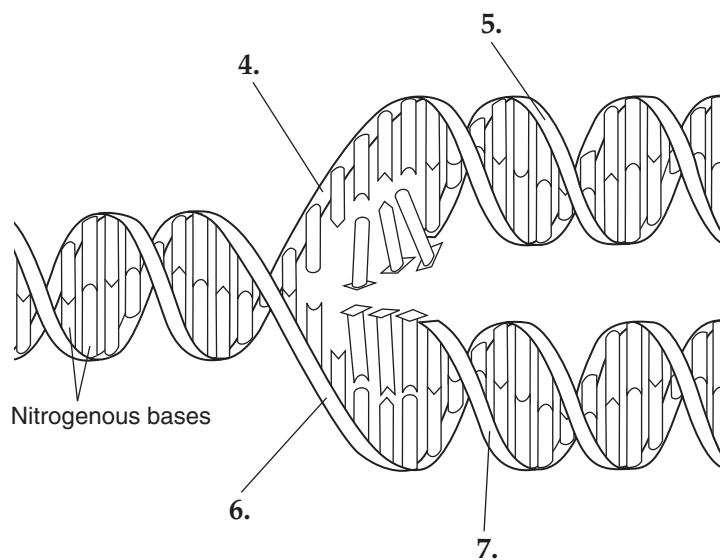
Section Review 12-2

Reviewing Key Concepts

Completion On the lines provided, choose the words that correctly complete the following sentences.

1. During DNA replication, the DNA molecule _____ (separates/combines) into two strands.
2. At the end of DNA replication, _____ (four/two) new strands of DNA have been produced, giving a total of _____ (four/six) strands of DNA.
3. New DNA is replicated in strands complementary to old DNA because production of new DNA follows the rules of _____ (base pairing/the double helix).

Identifying Structures On the lines corresponding to the numbers on the diagram, write whether the strand pointed to is an original strand or a new strand.



4. _____
5. _____
6. _____
7. _____

Reviewing Key Skills

8. **Hypothesizing** The length of a bacterium's DNA may be 1000 times the length of the cell within which it is contained. Suggest an explanation for how this can occur.

9. **Comparing and Contrasting** How does the structure of a eukaryotic chromosome during mitosis differ from its structure during the rest of the cell cycle?
